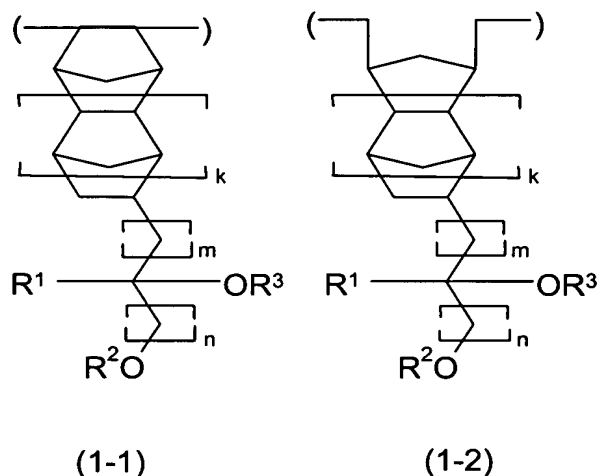


This listing of claims will replace all prior versions, and listings, of claims in the application:

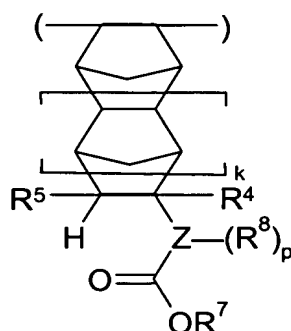
**LISTING OF CLAIMS:**

1. **(Currently Amended)** A polymer comprising recurring units of the following general formula (1-1) or (1-2) ~~derived from the ether compound of the above formula (1)~~ and having a weight average molecular weight of 1,000 to 500,000,



~~wherein k, m, n, and R<sup>1</sup> to R<sup>3</sup> are as defined above~~ wherein R<sup>1</sup> is hydrogen or a straight, branched or cyclic alkyl group of 1-6 carbon atoms, R<sup>2</sup> is a straight, branched or cyclic alkyl group of 1-6 carbon atoms, R<sup>3</sup> is hydrogen or an acyl or alkoxy carbonyl group of 1-15 carbon atoms in which some or all of the hydrogen atoms on the constituent carbon atoms may be substituted with halogen atoms, k is 0 or 1, m is an integer from 0-3, and n is an integer from 3-6.

2. **(Currently Amended)** The polymer of claim 1 comprising, in addition to the recurring units of formula (1-1), recurring units of the following general formula (2-1):



(2-1)

wherein k is 0 or 1 ~~as defined above~~,

R<sup>4</sup> is hydrogen, methyl or CH<sub>2</sub>CO<sub>2</sub>R<sup>6</sup>,

R<sup>5</sup> is hydrogen, methyl or CO<sub>2</sub>R<sup>6</sup>,

R<sup>6</sup> is a straight, branched or cyclic alkyl group of ~~1 to 15~~ 1-15 carbon atoms,

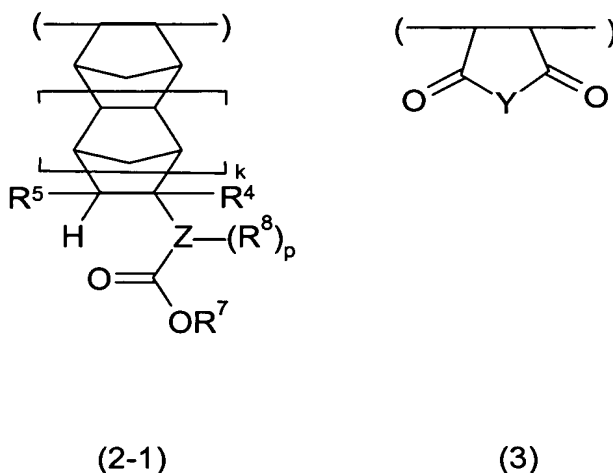
R<sup>7</sup> is an acid labile group,

R<sup>8</sup> is ~~selected from the class consisting of~~ a halogen atom, a hydroxyl group, a straight, branched or cyclic alkoxy, acyloxy or alkylsulfonyloxy group of ~~1 to 15~~ 1-15 carbon atoms, ~~and or~~ or a straight, branched or cyclic alkoxycarbonyloxy or alkoxyalkoxy group of ~~2 to 15~~ 2-15 carbon atoms, in which some or all of the hydrogen atoms on constituent carbon atoms may be substituted with halogen atoms,

Z is a single bond or a straight, branched or cyclic (p+2)-valent hydrocarbon group of ~~1 to 5~~ 1-5 carbon atoms, in which at least one methylene may be substituted with oxygen to form a chain-like or cyclic ether or two hydrogen atoms on a common carbon may be substituted with oxygen to form a ketone, and

p is 0, 1 or 2.

3. (Currently Amended) The polymer of claim 1 comprising, in addition to the recurring units of formula (1-1), recurring units of the following general formulae (2-1) and (3):



wherein  $Z$ ,  $k$ ,  $p$  and  $R^4$  to  $R^8$  are as defined above  $k$  is 0 or 1,

$R^4$  is hydrogen, methyl or  $CH_2CO_2R^6$ ,

$R^5$  is hydrogen, methyl or  $CO_2R^6$ ,

$R^6$  is a straight, branched or cyclic alkyl group of 1-15 carbon atoms,

$R^7$  is an acid labile group,

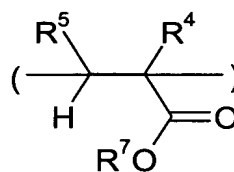
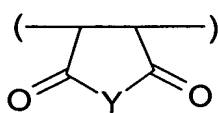
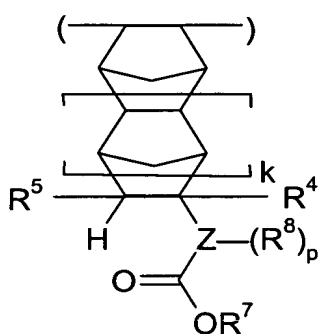
$R^8$  is a halogen atom, a hydroxyl group, a straight, branched or cyclic alkoxy, acyloxy or alkylsulfonyloxy group of 1-15 carbon atoms, or a straight, branched or cyclic alkoxycarbonyloxy or alkoxyalkoxy group of 2-15 carbon atoms, in which some or all of the hydrogen atoms on constituent carbon atoms may be substituted with halogen atoms,

$Z$  is a single bond or a straight, branched or cyclic  $(p+2)$ -valent hydrocarbon group of 1-5 carbon atoms, in which at least one methylene may be substituted with oxygen to form a chain-like or cyclic ether or two hydrogen atoms on a common carbon may be substituted with oxygen to form a ketone,

p is 0, 1 or 2, and

Y is an oxygen atom or  $\text{NR}^9$  wherein  $\text{R}^9$  is a straight, branched or cyclic alkyl group of ~~1 to 6~~ 1-6 carbon atoms.

4. **(Currently Amended)** The polymer of claim 1 comprising, ~~in addition to the~~ recurring units of formula (1-1), recurring units of ~~the following general formula (4), alone or~~ the following general formula (2-1), and recurring ~~in combination with recurring units of the following general formula (2-1), and recurring~~ units of ~~the following general formula (3), and optionally, recurring units of the formula 2-1:~~



wherein ~~Y, Z, k, p, and  $\text{R}^4$  to  $\text{R}^9$  are as defined above~~ k is 0 or 1,

$\text{R}^4$  is hydrogen, methyl or  $\text{CH}_2\text{CO}_2\text{R}^6$ ,

$\text{R}^5$  is hydrogen, methyl or  $\text{CO}_2\text{R}^6$ ,

$\text{R}^6$  is a straight, branched or cyclic alkyl group of 1-15 carbon atoms,

$\text{R}^7$  is an acid labile group,

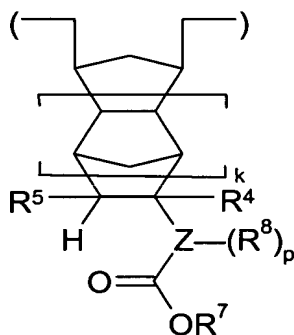
$\text{R}^8$  is a halogen atom, a hydroxyl group, a straight, branched or cyclic alkoxy, acyloxy or alkylsulfonyloxy group of 1-15 carbon atoms, or a straight, branched or cyclic alkoxycarbonyloxy or alkoxyalkoxy group of 2-15 carbon atoms, in which some or all of the hydrogen atoms on constituent carbon atoms may be substituted with halogen atoms,

Z is a single bond or a straight, branched or cyclic (p+2)-valent hydrocarbon group of 1-5 carbon atoms, in which at least one methylene may be substituted with oxygen to form a chain-like or cyclic ether or two hydrogen atoms on a common carbon may be substituted with oxygen to form a ketone,

p is 0, 1 or 2, and

Y is an oxygen atom or NR<sup>9</sup> wherein R<sup>9</sup> is a straight, branched or cyclic alkyl group of 1-6 carbon atoms.

5. (Currently Amended) The polymer of claim 1 comprising, in addition to the recurring units of formula (1-2), recurring units of the following general formula (2-2):



(2-2)

wherein Z, k, p and R<sup>4</sup> to R<sup>8</sup> are as defined above k is 0 or 1,

R<sup>4</sup> is hydrogen, methyl or CH<sub>2</sub>CO<sub>2</sub>R<sup>6</sup>,

R<sup>5</sup> is hydrogen, methyl or CO<sub>2</sub>R<sup>6</sup>,

R<sup>6</sup> is a straight, branched or cyclic alkyl group of 1-15 carbon atoms,

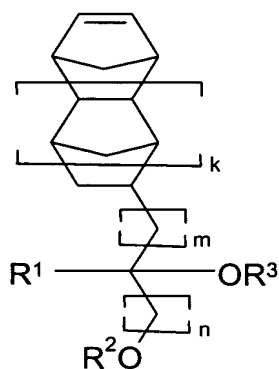
R<sup>7</sup> is an acid labile group,

R<sup>8</sup> is a halogen atom, a hydroxyl group, a straight, branched or cyclic alkoxy, acyloxy or alkylsulfonyloxy group of 1-15 carbon atoms, or a straight, branched or cyclic alkoxycarbonyloxy or alkoxyalkoxy group of 2-15 carbon atoms, in which some or all of the hydrogen atoms on constituent carbon atoms may be substituted with halogen atoms,

Z is a single bond or a straight, branched or cyclic (p+2)-valent hydrocarbon group of 1-5 carbon atoms, in which at least one methylene may be substituted with oxygen to form a chain-like or cyclic ether or two hydrogen atoms on a common carbon may be substituted with oxygen to form a ketone, and

p is 0, 1 or 2.

6.     **(Original)**     A resist composition comprising the polymer of claim 1.
  
7.     **(Original)**     A process for forming a resist pattern comprising the steps of:  
          applying the resist composition of claim 6 onto a substrate to form a coating,  
          heat treating the coating and then exposing it to high-energy radiation or electron  
          beams through a photo mask, and  
          optionally heat treating the exposed coating and developing it with a developer.
  
8.     **(New)**     The polymer of claim 1, wherein the units of formula (1-1) or (1-2) are  
          derived from an ether compound of the following general formula (1):



(1)

wherein R<sup>1</sup> is hydrogen or a straight, branched or cyclic alkyl group of 1-6 carbon atoms, R<sup>2</sup> is a straight, branched or cyclic alkyl group of 1-6 carbon atoms, R<sup>3</sup> is hydrogen or an acyl or alkoxycarbonyl group of 1-15 carbon atoms in which some or all of the hydrogen atoms on the constituent carbon atoms may be substituted with halogen atoms, k is 0 or 1, m is an integer from 0-3, and n is an integer from 3-6.